

ZEMLYANSKIY, V.A., kand. tekhn. nauk; GRANIN, Yu.F.; STARCHENKO, B.V.

Circular self-rotating cutters. Mashinostroitel' no.6:35-36 Je '65.  
(MIRA 18:7)

GRANINA, A.; TYUMENTSEV, N.

Nina Afanas'evna Epova, obituary. Izv. Vses. geog. ob-va 93 no.4:  
348-349 J1 - Ag '61. (MIRA 14:7)  
(Epova, Nina Afanas'evna, 1903 - 1960)

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 5,  
p 2 (USSR) 15-57-5-5694

AUTHOR: Granina, A. N.

TITLE: History of Mineralogical Investigations in Siberia (the  
Work of Grigoriy Markianovich Permikin). /Iz istorii  
mineralogicheskikh issledovaniy Sibiri (Raboty Grigoriya  
Markianovicha Permikina)/

PERIODICAL: V sb: Ocherki po istorii geol. znaniy. Nr 5, Moscow,  
AN SSSR, 1956, pp 155-175.

ABSTRACT: The Russian geologist G. M. Permikin (circa 1813-1879)  
is well known as the investigator of the Baikal  
districts, of the eastern outskirts of Sayan and other  
parts of Eastern Siberia. In 1850 Permikin was sent  
to Siberia in search of nonferrous rocks. He began his  
work in trans-Baikal district with the search for  
lazulite in the alluvial deposits of the Slyudyanka  
River where he was trying to find native deposits.  
Having established that lazulite is associated with the

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History of Mineralogical Investigations in Siberia (Cont.)

contact zone of marbled limestone and connected with fissures and with fault breccia where pneumatic processes have occurred, G. M. Permikin used this deduction as a working hypothesis and discovered seven native deposits of lazulite on the Slyudyanka River. Somewhat later he discovered a rich deposit of lapis lazuli on the Malaya Bystraya River. In 1851 he went to Sayan Mountains to prospect for nephrite. Here, on the banks of the Onot River, he uncovered nephrite pebbles. Permikin found that crystallized schists with their subordinate serpentine rocks were the bearers of the Sayan nephrite. On the banks of one of the tributaries of the Kitoy River he discovered the first native formation of nephrite. During the years 1851-1863 G. M. Permikin supplied the Petersburg Lapidary Plant with 657 poods (10761.66 kg) of nephrite at a cost of 40 rubles a pood (instead of 1000 rubles a pood, which the plant had been paying the Bokhara traders). In the 1850's Permikin also discovered in Siberia deposits of marmolite, pimelite, marble, agalmatolite, smoky topaz and many other minerals. He made two geographic maps of the two branches of the Eastern Sayan. In the mid-1850's he went as a geologist on the Amur expedition. He prepared a petrographic map of the

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History of Mineralogical Investigations in Siberia (Cont.)

Amur banks and established criteria for the occurrence of iron, coal, iron pyrites, and precious stone deposits; he also investigated the rocks of the banks of Tatar Strait.

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D. I. G.

L 34370-66 EWT(1)/EWT(m)/T/EWP(t)/ETI/EWP(R) IJP(c) JS/DS

ACC NR: AP6007901

SOURCE CODE: UR/0420/65/000/002/0106/0111

AUTHOR: Granin, Yu. F.

ORG: None

TITLE: Wear and durability of circular rotary cutters

SOURCE: Samoletostroyeniye i tekhnika vozdushnogo flota, no. 2, 1965, 106-111

TOPIC TAGS: metalworking machine, metal cutting, wear resistance

ABSTRACT: The process of cutting metals by circular rotary cutters has several specific characteristics due to the rotary cutting edge. It has been shown elsewhere that the durability of the cutter is due mainly to the angle of inclination of the plane of the cutting edge.  $\lambda$ . The present author investigates the cutting process of such a cutter with an increase in angle  $\lambda$  from  $0^\circ$  to  $90^\circ$ . The analysis is based on data of scientific-research work performed at the Khar'kov Aviation Institute (Khar'kovskiy aviatsionnyy institut) which was registered at the Committee for Inventions and Discoveries attached to the Council of Ministers SSSR (Komitet po delam izobreteniy i otkrytiy pri Sovete Ministrov SSSR). Certificate No. 27255 was issued on Jan. 30, 1962, and Certificate No. 28918 on May 10, 1962. The re-

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L 34370-66

ACC NR: AP6007901

sults of the study are discussed in detail. Orig. art. has: 5 figures.

SUB CODE: 13 / SUBM DATE: none / ORIG REF: 010

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*gp*

GRANINA, A.N.

V.A. Obruchev's activity in the Eastern Siberian department of  
the Geographical Society of the U.S.S.R. Izv. Vses. Geog. ob-va  
89 no.2:123-130 Mr-Apr '57. (MLRA 10:6)  
(Obruchev, Vladimir Afanas'evich, 1863-)



GRANINA, A.N., otv. za vypusk; DOMARADSKIY, I.V., otv. red.;  
← SILINSKIY, P.I., otv. red.; ZHOVTYY, I.F., red.;  
NEKIPELOV, N.V., red.; SKALON, V.N., red.; TRUSHCHINA, T.M.,  
tekhn. red.

[Collection of works on biology, 1960] Biologicheskii sbornik  
1960 g. Irkutsk, Vostochno-Sibirskoe otd-nie geogr. ob-va  
SSSR, 1961. 285 p. (MIRA 15:11)

(BIOLOGY)

GRANINA, A.N.

Use of nephrite and the history of its discovery in Buryatia.  
Trudy BKNII no.7:109-118 '61. (MIRA 16:4)  
(Buryat-Mongolia--Jade)

GRANINA, A.N.

Academician V.A.Obruchev's scientific, pedagogical and literary  
ties with Irkutsk. Izv. Vost.-Sib. otd. Geog. ob-va SSSR 61:  
42-50 '63. (MIRA 17:3)

KHROMCHENKO, I.A.; GRANINA, I.V., red.; KHITROV, P.A., tekhn.red.

[Stories about communist labor brigades in railroad transportation] Rasskazy o brigadakh kommunisticheskogo truda na shaleznodorozhnom transporte. Moskva, Gos.transp.zhel-dor.  
izd-vo, 1959. 126 p. (MIRA 12:12)  
(Railroads--Employees)

1965/02/10 Feb 10  
1965/02/10

TR 0387/65/000/004/0038/0051  
1965/02/10

Avarensky, Ye. P.; Glasko, V. B.; Granit, Ya. Sh.

Dispersion curves of Rayleigh and Love waves as applied to two- and three-layered continental earth crust

SOURCE AN SSSR. Izvestiya. Fizika zemli, no. 4, 1965, 38-51

Earth crust, seismic wave, computer programming, phase velocity, data analysis, surface wave

Results of dispersion of Love and Rayleigh waves in two- and three-layered systems are presented and analyzed. A method of programming for the calculation of dispersion curves is described. The method is applied to a two-layered system. The structure of the crust is determined from the wave data by observing the dependence of phase velocity on frequency and by comparing this dependence with the calculated dispersion curves. The models differ in relative thickness of the layers and in relative velocity of longitudinal and transverse waves in the layers. This article

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GRANITOV, Ippolit Ivanovich, doktor biol. nauk; GRANITOV, Aleksandr  
Ivanovich; LEBEDEV, S., red.; ABBASOV, T., tekhn. red.

[Natural forage lands in Uzbekistan] ~~Estestvennye~~ kormovye  
ugod'ia Uzbekistana. Tashkent, Gosizdat UzSSR, 1962. 41 p.  
(MIRA 16:6)

(Uzbekistan--Pastures and meadows)

GRANITOV, Ardal'on Vasil'yevich

GRANITOV, Ardal'on Vasil'yevich; SHEMONAYEV, P., redaktor; YAKOVLEVA, Ye.,  
tekhnicheskiy redaktor

[Moscow parks and gardens] Parki i sady Moskvy. [Moskva] Mosk.  
rabochii, 1957. 86 p. (MLRA 10:9)  
(Moscow—Parks)



GRANITOV, I.I.; ZAKHIDOV, T.Z., professor, doktor, redakter; POPOV, V.I., professor, doktor, redakter; ROMANOVSKIY, V.I., redakter; DODONOV, I.K., redakter; KOROVIN, Ye.P., redakter; TSUKERNYANIK, I.P., redakter, KORZHENEVSKIY, N.L., redakter; RAYKOWA, I.A., professor, doktor, redakter; YERSHOW, V.V., dotsent, redakter; VOSKOBOYNIKOV, E.A., dotsent; BONDARENKSKIY, L., dotsent, redakter.

[Vegetation map of southwestern Kyzyl-Kum; detailed mapping of desert vegetation] Karta rastitel'nosti iugozapadnykh Kyzyl-Kumov; Tashkent, Izd.Sredneaziatskego gos. univ.1950.84 p.(Tashkent.Universitet. Trudy Sredneaziatskego gosudarstvennogo universiteta, no.19,Biologicheskie nauki, no.8) (MLBA 9:2)

- 1.Deystvitel'nyy chlen AN UzSSR (for Romanovskiy, Dodonov, Korovin).
- 2.Chlen-korrespondent AN UzSSR (for TSukernyanik, Korshenevskiy)  
(Kyzyl-Kum--Phytogeography) (Kyzyl-Kum--Desert Flora)

GRANITOV, I. I.

ZAKIROV, K. Z., and GRANITOV, I. I.

"Role of Man in Change of Plant Life of Central Asia" (Biogeography, Phytogeography),  
Izv. AN Uzb. SSR, No. 3, 1953, pp 50-58

Abs

W-31146, 1 Feb 55

GRANITOV, I.I.; PYATAYEVA, A.D.

Vegetation, natural pastures, and meadows in Kashka-Darya Province.  
Izv. Uzb. fil. Geog. ob-va 2:134-149 '56. (MIRA 11:4)

(Kashka-Darya Province--Plants)  
(Kashka-Darya Province--Pastures and meadows)

~~GRANITOV, I. L.~~ PYATAYEVA, A.D.

Main features of the vegetation cover of Kashka-Dar'ya Province.  
Trudy SAGU no.80:85-91 '56. (MLRA 10:4)  
(Kashka-Dar'ya Province--Phytogeography)

MUZAFAROV, A.M.; GRANITOV, I.I., kand. biol. nauk, otv. red.; CHAYKA,  
G.V., red. 1<sup>ed</sup>-va;; SALIMOVA, D., tekhn. red.

[Algae of mountain waters in Central Asia] Flora vodoroslei gornykh  
vodoemov Srednei Azii. Tashkent, Izd-vo Akad. nauk UzSSR, 1958. 377 p.  
(Soviet Central Asia--Algae)

AKULOV, V.V., kand.geogr.nauk; BABUSHKIN, L.N., doktor geogr.nauk;  
 ORKSHINA, L.M.; SKVORTSOV, Yu.A., doktor geol.-mineral.nauk;  
 PETROV, N.P., kand.geol.-mineral.nauk; CHERNEVSKIY, N.N.;  
 KRYLOV, M.M., doktor geol.-mineral.nauk; KHASANOV, A.S.;  
 BEDNER, B.A., kand.geol.-mineral.nauk; KIMBERG, N.V., kand.  
 sel'skokhoz.nauk; SUCHKOV, S.P.; GLAGOLEVA, A.F.; PERVU-  
 SHINA-GROSHEVA, A.M.; VERNIK, R.S., kand.biol.nauk; MOMOTOV,  
 I.F.; GRANITOV, I.I., kand.biol.nauk; SALIKHBAYEV, Kh.S., kand.  
 biolog.nauk; STEPANOVA, N.A., kand.biolog.nauk; YAKHONTOV, V.V.;  
 DAVLETSHINA, A.G., kand.biolog.nauk; MURATBEKOV, Ya.M., kand.  
 biolog.nauk; [deceased]; KUKLINA, T.Ye.; KORZHENEVSKIY, N.L., red.  
 [deceased]; GORBUNOV, B.V., kand.geologo-mineral.nauk, red.;  
 DONSKOY, P.V., red.; YAKOVENKO, Ye.P., red.isd-va; GOR'KOVAYA,  
 Z.P., tekhn.red.

[Materials on the productive forces of Uzbekistan] Materialy po  
 proizvoditel'nyy silam Uzbekistana. Tashkent. No.10. [Natural  
 conditions and resources of the lower reaches of Amu-Darya;  
 Kara-Kalpak A.S.S.R. and Khorezm Province of the Uzbek S.S.R.]  
 Prirodnye usloviya i resursy nizov'ev Amu-Dar'i; Kara-Kalpakskaya  
 ASSR i Khorezmskaya oblast' UzSSR. 1959. 351 p. (MIRA 13:5)

1. Akademiya nauk Uzbekskoy SSR, Tashkent. Sovet po izucheniyu  
 proizvoditel'nykh sil. 2. Chleny-korrespondenty AN UzSSR (for  
 Yakhontov, Korshenevskiy).  
 (Amu-Darya Valley--Physical geography)

GRANITOV, I. I. Doc Biol Sci -- "Plant cover of the southwestern Kzyl-Kumy.  
(Exper<sup>ence</sup>~~iment~~<sup>the</sup> in ~~the~~ coenophytological monograph of desert vegetation)."  
Tashkent, 1961 (Acad Sci UzSSR. Inst of Botany). (KL, 4-61, 191)

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GRANITOV, I.I.; PYATAYAVA, A.D.

Harmony between organism and environment. Trudy TashGU no.187:  
87-94 '61. (MIRA 15:3)

1. Tashkentskiy gosudarstvennyy universitet imeni Lenina.  
(Evolution)  
Tashkent State Univ. named U.T. Lenin



GRANITOV, I.I.

Some biocological features of the flora of Kyzyl Kum. Trudy  
TashGU no.187:102-110 '61. (MIRA 15:3)

1. Tashkentskiy gosudarstvennyy universitet imeni Lenina.  
(Kuzyl Kum--Botany)

GRANITOV, Ippolit Ivanovich, doktor biol. nauk; GRANITOV, Aleksandr  
Ivanovich; LEBEDEV, S., red.; ABBASOV, T., tekhn. red.

[Natural forage lands in Uzbekistan] ~~Estestvennye~~ kormovye  
ugod'ia Uzbekistana. Tashkent, Gosizdat UzSSR, 1962. 41 p.  
(MIRA 16:6)

(Uzbekistan--Pastures and meadows)

SABININA, I.G.; KARAUL'SHCHIKOVA, N.N.; POSLAVSKAYA, O.Yu.; GRANITOV, I.I.;  
KOGAY, N.A.

Leonid Nikolaevich Babushkin; on his 60th birthday. Izv.Uzb.fil.  
Geog.ob-va 6:187-189 '62. (MIRA 15:8)  
(Babushkin, Leonid Nikolaevich, 1902-)

GRANITOV, I.I.

Pastures of Uzbekistan. Uzb.biol.zhur. 6 no.6:7-12 '62. (MIRA 16:5)

1. Institut botaniki AN UzSSR.  
(UZBEKISTAN—PASTURES AND MEADOWS)

PYATAYEVA, A.D.; GRANITOV, I.I.

On the nature of ephemeral plants. Nauch. trudy TashGU no.193:  
141-153 '62. (MIRA 16:7)

(Soviet Central Asia—Desert flora)

KORZHENEVSKIY, N.L.; DONTSOVA, Z.N.; KHASANOV, Kh.Kh., dots.;  
VASIL'KOVSKIY, N.P.; SKVORTSOV, Yu.A.; POSLAVSKAYA, O.Yu.;  
KOGAY, N.A., dots.; MAMEDOV, E.D.; AKULOV, V.V.; BABUSHKIN,  
L.N., prof.; SHUL'TS, V.L., prof.; GORBUNOV, B.V.; GRANITOV,  
I.I.; KOSTIN, V.P.; SMIRNOV, N.V., dots.; TSAPENKO, N.G.,  
dots.; DEGTYAR', V.I.; CHERNOV, P.N.; MUKMINOV, F.G.;  
SELIYEVSKAYA, A.A.; RYABCHIKOV, A.M.; DALIMOV, N.D., dots.;  
LOBACH, Kh.S.; TADZHIMOV, T.; ARKAD'YEVA, A.N.; GAL'KOV,  
Ch.V.; SHTARKLOVA, S.I.; BESSONOV, M., red.; BAKHTIYAROV, A.,  
tekhn. red.

[The Uzbek S.S.R.] Uzbekskaya SSR. Tashkent, Gos.izd-vo  
UzSSR, 1963. 483 p. (MIRA 16:8)  
(Uzbekistan)

GRANITOV, Ippolit Ivanovich; ZAKHIDOV, T.Z., doktor biol. nauk,  
prof., akademik, otv. red.; MOSHCENKO, Z.V., red.

[Plant cover of the southwestern Kyzylkum] Rastitel'-  
nyi pokrov IUGo-Zapadnykh Kyzylkumov. Tashkent, Izd-  
vo "Nauka" Uzbekskoi SSR. Vol.1. 1964. 334 p.  
(MIRA 17:6)

1. Akademiya UzbSSR (for Zakhidov).

VERNIK, R.S.; MAYLUN, Z.A.; MOMOTOV, I.F.; ~~GRANITOV, I.I.~~,  
doktor bich. nauk, prof., otv. red.; MUSHCHENKO, Z.V.,  
red.

[Vegetation of the lower part of the Amu Darya River  
and its efficient use] Rastitel'nost' nizov'ev Amu-  
Dar'i i puti ee ratsional'nogo ispol'zovaniia. Tashkent,  
Izd-vo "Nauka" Uzbekskoi SSR, 1964. 210 p.

(MIRA 18:1)



VERNIK, R.S.; GRANITOV, I.I.

Some data on the effect of grazing on the composition and  
productivity of ephemeral pastures. Nauch. trudy TashGU  
no.241. Biol. nauki no.44:129-132. '64.

(MIRA 18:7)

ZAKIROV, K.Z.; MOTKHIN, I.N.; CHEVRENIDI, S.Kh.; GRANITOV, I.I.,  
prof., otv. red.; KVIATKOVSKAYA, V.V., red.

[Soaproot of Turkestan; its biology and the methods of  
introducing it into culture] Turkestanskii myl'nyi koren';  
voprosy biologii i puti vvedeniia v kul'turu. Tashkent,  
Izd-vo "Nauka" UzSSR, 1965. 107 p. (MIRA 18:10)

GRANITOVA, N.M., inzh.; KLIGMAN, V.V., kand.tekhn.nauk; MAKOVKIN, I.M.;  
TISHCHENKO, Ye.V.

New organization of operations at main stations and on approach lines.  
Zhel. dor. transp. 43 no. 1:74-77 Ja '61. (MIRA 14:4)

1. Nachal'nik stantsii Yel'shanka Privolzhskoy dorogi (for Makovkin).
2. Nachal'nik tovarnoy kontory stantsii Yel'shanka Privolzhskoy dorogi  
(for Tishchenko).  
(Railroads—Freight)

GRAN, G.I., LONDON, G.S.

Infrared absorption spectra of complex compounds of bivalent copper with anabasine. Nauch.trudy TashGU no.257. Khim.nauki no.123/4-54 '64.

Infrared spectrum of anabasine. Ibid.155-63

(MIRA 18:8)

GRANITOVA. O. I..

Ayrapietova, R. P., Granitova, O. I., and Uiovenko, V. V. - "Physical-chemical investigation of a for ic acid-phenol system", Doklady Akad. nauk UzSSR, 1949, No.2, p. 13-20, (Resume in Azerbaijani), - Bibliog: 1/ iters.

SO: U-4392, 19 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 21, 1949

GRANITOVA, O. I.

USSR

✓ Separation of mixture of alkaloids anabasine and lupinine.  
V. V. U'doyenko, O. I. Granitova, and L. A. Vvedenskaya  
(Central Asia State Univ., Tashkent). *Sbornik State*  
*Obshchei Khim.* 2, 123-6 (1953). — The sepn. is performed  
through the Cu salts (cf. following abstr.) as follows. The  
mixture of known comp. of anabasine and lupinine is treated  
with a highly concd. soln. of CuCl<sub>2</sub> and HCl or Cu(NO<sub>3</sub>)<sub>2</sub> and  
HNO<sub>3</sub>, made up on the basis of theoretical calcul. to form  
either CuCl<sub>2</sub>·A·2HCl or Cu(NO<sub>3</sub>)<sub>2</sub>·2A·4HNO<sub>3</sub> (A = ana-  
basine), with cooling. The order of addn. is immaterial.  
Since the mixt. now contains a ppt. of Cu oxide, addnl. acid  
is added to dissolve this (avoid excess of HNO<sub>3</sub>). Traces of  
kerosine from com. alkaloids are removed at this point by  
boiling. The mixt. then yields cryst. salt of anabasine,  
which treated with concd. NaOH gives the pure base, which  
is purified by distn. in *vacuo*. The evapd. filtrate from the  
salt is treated with concd. NaOH and extd. with C<sub>6</sub>H<sub>6</sub>.  
Evapn. of the ext. yields cryst. lupinine. The HCl salt  
gives somewhat better results. Pure anabasine b<sub>p</sub> 107-108°.  
n<sub>D</sub><sup>20</sup> 1.5420, d<sub>4</sub> 1.0460; lupinine m. 89°. G. M. K.

GRANTOVA, O. I.

USSR.

✓ Reaction of anabasine with salts of copper. V. V. Udovenko and O. I. Grantova (Central Asia State Univ., Tashkent). *Sbornik statev Obshchei Khim.* 2, 1127-9 (1953).--Anabasine (A) forms 3 salts with  $\text{CuCl}_2$  and  $\text{HCl}$  and with  $\text{CuBr}_2$  and  $\text{HBr}$ , resp. With control of the reactant proportions there were obtained: yellow  $\text{CuCl}_2 \cdot 4\text{A} \cdot 2\text{HCl}$ , decomp.  $205^\circ$  (in aq. soln. this dissoc. into components on basis of cond. detns.);  $\text{CuCl}_2 \cdot 4\text{A} \cdot \text{HCl}$  green, decomp.  $194-6^\circ$  (completely dissoc. in aq. soln.); black  $\text{CuBr}_2 \cdot 4\text{A} \cdot 2\text{HBr}$ , decomp.  $214^\circ$ ; red-brown  $\text{CuBr}_2 \cdot 4\text{A} \cdot \text{HBr}$ ,

decomp.  $157^\circ$ . Similarly was obtained blue-violet  $\text{Cu}(\text{NO}_3)_2 \cdot 4\text{A} \cdot \text{HNO}_3$ , decomp.  $167^\circ$ , and blue  $\text{CuSO}_4 \cdot 4\text{A} \cdot \text{H}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$ , which loses all  $\text{H}_2\text{O}$  at  $109^\circ$ . All dissoc. in aq. solns.

G. M. Kosolapoff

AP  
MO

GRANTOVY, P. L.  
✓ Dipole moment of anisotropy. <sup>1</sup> O. L. Grantova and A. P. <sub>nd</sub>  
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UDOVENKO, V.V.; GRANITOVA, O.I.

Reaction of anabasine with copper chloride and copper bromide.  
Uzb.khim.zhur. no.4:36-41 '61. (MIRA 14:8)

1. Tashkentskiy gosudarstvennyy universitet imeni V.I.Lenina i  
Kiyevskiy politekhnicheskii institut.  
(Anabasine) (Copper chloride) (Copper bromide)

GRANITOVA, O.I.

Spectrophotometric study of the reactions of anabasine with  
cupric chloride, bromide, and nitrate. Uzb.khim.zhur. 7  
no.1:34-39 '63. (MIRA 16:4)

1. Tashkentskiy gosudarstvennyy universitet imeni Lenina.  
(Anabasine) (Copper salts) (Spectrophotometry)

USMANOV, Kh.U.; KALABANOVSKAYA, Ye.I.; GRANITOVA, O.I.; SHARAFUTDINOVA, E.G.

Study of relaxation processes in cellulose fibers subjected to  
gamma-radiation. Uzb. khim. zhur. 7 no.2:76-79 '63. (MIRA 16:8)

1. Tashkentskiy gosudarstvennyy universitet imeni Lenina i  
Altayskiy sel'skokhozyaystvennyy institut.  
(Cellulose) (Gamma rays)

GRANITOVA, O. N.

The Distribution of Rubber in the Roots of Uzbek Tau-Saghyz  
Dokl. AN UzSSR. No 8, 1953, pp 40-44

Uzbek tau-saghyz, which was first discovered 1949, is biologically similar to the kara-tau species, and the distributions of rubber in both follows the same principles. The amount of rubber in the stem root gradually increases, reaching a maximum at a definite depth. (RZhKhim, NO 21, 1954)

SOM: Sum. No. 639, 2 Sep 55

GRANITOVA, O.N.

Effect of temperature and moisture on the germination of seeds of  
certain Central Asiatic plants. Trudy Inst. bot. AN Uz. SSR no. 3:63-  
101 '55. (Soviet Central Asia--Botany) (Germination) (MLRA 10:1)

BERNSHTEYN, L.A.; KIRILLOV, Yu.D.; POL'SKIY, L.L.; SATARIN, V.I.; Prinimeli  
uchastiyu: GRANITSA, A.G.; KANOVICH, Ye.G.; GRODZINSKIY, Ya.Yu.  
KHUDYAK, M.L.; DOBROLOVSKIY, G.G.; ZABLOTSKIY, Ye.Z.; RYZHKIN, D.I.;  
OSTROVSKAYA, N.D.

Development and adoption of a system of hydraulic conveying of  
raw slurry at the Novo-Zdolbunov Cement Plant. Trudy IUzhgipro-  
tsementa no.4:79-107 '63. (MIRA 17:11)

1. Gosudarstvennyy institut po proyektirovaniyu tsementnykh  
zavodov v yuzhnykh rayonakh SSR (for Granitsa, Kanovich,  
Grodzinskiy, Khudyak). 2. Novo-Zdolbunovskiy tsementnyy zavod  
(for Dobrolovskiy, Zablotskiy, Ryzhkin, Ostrovskaya).

GRANITSKAYA, L.A.; LOPATIN, B.A.

Semiconductor high-frequency apparatus for measuring electric  
conductivity and titration. Zav. lab. 29 no.9:1145-1146 '63.  
(MIRA 17:1)

1. Sibirskoye otdeleniye AN SSSR.

PAZNIKOV, P.M., starshiy prepodavatel'; GRANITSKIY, L.V., inzh.

Stabilization of a transistorized electric current rectifier. Vest.  
svyazi 23 no.1:17-18 Ja '63. (MIRA 16:3)

1. Novosibirskiy elektrotekhnicheskiy institut svyazi (for Paznikov)  
(Electric current rectifiers) (Electric power supply to apparatus)



L 4502-66 EWT(1)/EWT(m)/EWA(h) GS  
ACCESSION NR: AT5022844

UR/0000/65/000/000/0289/0292

41  
40  
3

AUTHOR: Granitskiy, L. V.; Neyermoldov, A. F.; Vorob'yev, Yu. K.; Kononova, G. V.

TITLE: Automatic programmed counter <sup>15</sup>

SOURCE: Vsesoyuznoye soveshchaniye po kosmofizicheskoy napravleniyu issledovaniy kosmicheskikh luchey. 1st, Yakutsk, 1962. Kosmicheskiye luchy i problemy kosmofiziki (Cosmic rays and problems in cosmophysics); trudy soveshchaniya. Novosibirsk, Redizdat Sib. otd. AN SSSR, 1965, 289-292

TOPIC TAGS: radiation counter <sup>17</sup> special purpose computer, radioactivity measurement

ABSTRACT: The automatic programmed counter described in the paper is intended for radioactive substances. It contains 2 counting channels, a time channel, a code converter, an output block, a programming device, a registering unit, and a power supply. The block diagram of the device is given together with a brief description of its operation. The maximum counting rate is 500 c/sec, the input pulse amplitude is 5 to 20 v, output resistance of the pulse source is not more than 10 k $\Omega$ , pulse rise time is not longer than 0.5  $\mu$ sec, the maximum channel capacity is 10<sup>7</sup>, the quartz generator instability is not larger than  $\pm 5 \cdot 10^5$ , and the device can be put on every 2, 5, 10, 20 sec, 1, 5, 10, 20 min, and 1, 2 hr. Orig. art. has: 1 figure.

Card 1/2

09010056

L 4502-66

ACCESSION NR: AT5022844

ASSOCIATION: Institut neorganicheskoy khimii SO AN SSSR (Institute of Inorganic Chemistry, SO AN SSSR)

SUBMITTED: 29Oct64

ENCL: 00

SUB CODE: NP, DP

NO REF SOV: 000

OTHER: 000

PC

Card 2/2

L 2142-66 EWT(1)/FCC GW

ACC NR: AP5025491

SOURCE CODE: UR/0203/65/005/005/0958/0960

AUTHOR: Granitskiy, L. V.; Neyerolov, A. F.; Nosov, V. Ye.

ORG: Institute of Terrestrial Magnetism, the Ionosphere, and Radio Wave Propagation,  
 SO AN SSSR (Institut zemnogo magnetizma, ionosfery, i rasprostraneniya radiovoln  
 SO AN SSSR)

TITLE: Decade counter with ferrite-transistor elements

SOURCE: Geomagnetizm i aeronomiya, v. 5, 1965, 958-960

TOPIC TAGS: pulse counting, decade counter

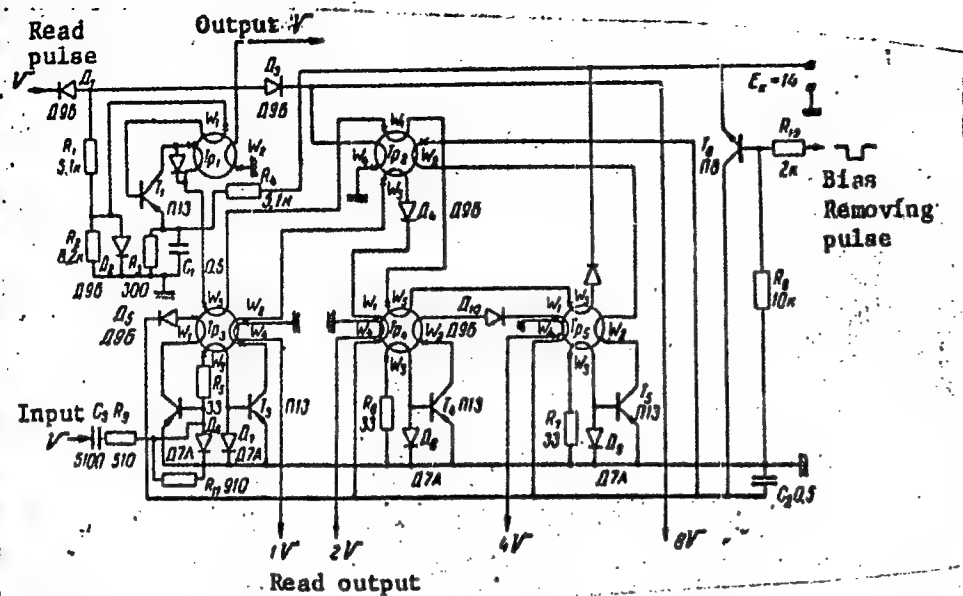
ABSTRACT: A decade counter with three ferrite-transistor flip-flops and one four-winding core with rectangular hysteresis loop is described. As seen from Fig. 1, the  $Tp_2$  core switches into the 1 state at the count of 8. The ninth and tenth pulses alternately switch the first flip-flop ( $Tp_3$ ) into the 1 and 0 states. Winding  $w_2$  of  $Tp_3$  transmits this transition to core  $Tp_2$  and switches it into the 0 state. The pulse emanating at this time from  $Tp_2$  winding  $w_4$  triggers the blocking generator ( $T_1$  and  $Tp_1$ ), which resets all the flip-flops. The counter functions in the ambient temperature range of  $-30C$  to  $+55C$ . The bias voltage  $E_k$  may vary from 9 to 22v without affecting the operation of the counter. The limiting counting frequency is

Card 1/3

UDC: 539.1.075

L 2142-66

ACC NR: AP5025491



**Fig. 1. Decade counter with ferrite-transistor elements**

30—50 kc under normal conditions, and 25 kc at +55C. Reliability is increased by including 51-ohm resistors in the transistor collector circuits. Orig. art. has: 3 figures. [BD]

Card 2/3

L 2142-66

ACC NR: AP5023491

SUB CODE: EC/ SUMM DATE: 21Oct64/ ORIG REF: 009/ OTH REF: 001/ ATD PRESS: #22

Card 3/3

L 3594-66 EWT(1)/FCC GW  
ACCESSION NR: AP5025493

UR/0203/65/005/005/0963/0965  
539.1.075

AUTHOR: Sergeyev, A. V.; Granitskiy, L. V.

TITLE: A precise digital recorder of atmospheric pressure

SOURCE: Geomagnetizm i aeronomiya, v. 5, no. 5, 1965, 963-965

TOPIC TAGS: meteorological instrument, barograph, atmospheric pressure recorder

ABSTRACT: An apparatus for recording atmospheric pressure which does not require processing of barograms or visual readings of a mercury barometer is proposed. Atmospheric pressures are measured with an accuracy of  $\pm 0.1$  mm Hg and temperatures with an accuracy of  $\pm 0.5^\circ\text{C}$ . The pressure readings are automatically corrected for temperature. The results are displayed on a digital panel, which can be substituted by other recording devices (photographing unit or digital printer); these can be placed at any desired distance from the sensors. Basic elements include a cup-type mercury barometer, a thermoelement (taken from a recording meteorological thermograph), a photocell device for reading mercury-meniscus levels, and a display unit. A schematic diagram of the apparatus is presented in the original article along with a detailed description of its structure and operation. Advantages claimed for the

Card 1/2

L 3594-66

ACCESSION NR: AP5025493

3

apparatus are: 1) a reliable system for generating scaled pulses; 2) use of a photocell device with a small light-sensitive surface; and 3) use of a narrow ( $\sim 2-4$  mm) beam which passes through a slit for further narrowing before passing through the barometer tube. Orig. art. has: 2 figures and 2 formulas. [EO]

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln, SO AN SSSR (Institute of Terrestrial Magnetism, the Ionosphere, and Propagation of Radio Waves, SO AN SSSR)

44,55

SUBMITTED: 25Nov64

ENCL: 00

SUB CODE: ES

NO REF SOV: 001

OTHER: 000

ATD PRESS: 4114

Card 2/2

L 23991-66  
ACC NR: AP6007831 SOURCE CODE: UR/0120/66/000/001/0168/0174

AUTHORS: Tsukerman, V. G.; Gerasimov, V. A.; Granitskiy, L. V.;  
Neyermolov, A. F.

ORG: Institute of Inorganic Chemistry, SO AN SSSR, Novosibirsk  
(Institut neorganicheskoy khimii SO AN SSSR)

TITLE: Three-electrode x ray tube with automatic stabilization of  
radiation intensity

SOURCE: Pribery i tekhnika eksperimenta, no. 1, 1966, 168-174

TOPIC TAGS: x ray equipment, radiation intensity, stabilizer/ZER-1  
*x ray equipment*

ABSTRACT: The authors present the results of development of an ex-  
perimental model of a three-electrode x ray tube (ZER-1) with a  
special power supply and with a third electrode introduced to control  
the x ray intensity (Fig. 1). A special power supply, which comprises  
a modification of standard x ray-tube supply, makes it possible to  
operate the tube with the anode current stabilized, with the x ray  
emission intensity stabilized, under pulsed conditions, and with

Card 1/2 UDC: 621.386.2



L 23991-66

ACC NR: AP6007831

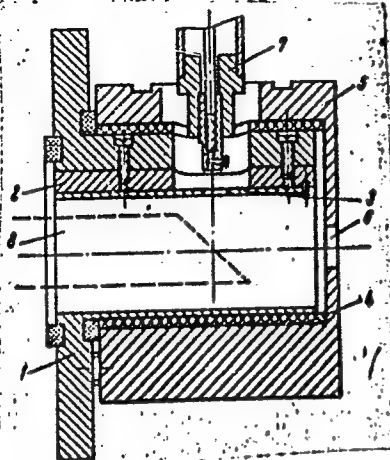


Fig. 1. Diagram of ZER-1 three-electrode x ray tube. 1 -- Base of control electrode, 2 -- segment, 3 -- guides, 4 -- ebonite ring, 5 -- x ray tube body, 6 -- opening for emergence for x rays, 7 -- tube cathode, 8 -- tube anode.

automatic control of the x ray dose. The ways of effecting the four different automatic-control operations are described in detail. A study was made of the influence of the interelectrode distance, the supply voltage, the magnitude and the shape of the control-electrode diagram on the dimensions of the focal spot, and also on the plate-grid characteristics of the tube. The authors thank E. Ye. Vaynshteyn for continuous interest in the work and a discussion of the results. Orig. art. has: 8 figures.

SUB CODE: 20/ SUBM DATE: 30Dec64/ ORIG REF: 008/ OTH REF: 007  
Card 2/2 *pla*

L 11373-65 EWT(m)/EWP(t)/EWP(b) LJH(c)/ESD(gs)/ESD(t)/BSD/SSD/ASD(a)-5/ASD(m)-3/  
AS(mp)-2/ANFL/ASD(p)-3 JD

ACCESSION NR: AP4041702

S/0181/64/006/007/2017/2021

AUTHORS: Zorin, Ye. I.; Tetel'baum, D. I.; Popov, Yu. S.;  
Granitsy\*na, Z. K.

TITLE: Change in the properties of the surface layer of n-germanium  
following bombardment by nitrogen ions with energy 40 keV B  
27

SOURCE: Fizika tverdogo tela, v. 6, no. 7, 1964, 2017-2021

TOPIC TAGS: germanium, n-type germanium, p-type germanium, radiation damage, lattice defect, radiation effect, ion bombardment

ABSTRACT: The effect of ion bombardment on n-type Ge was investigated in the dose interval  $10^{-2}$ -- $10^4$  microcoul/cm<sup>2</sup> by measuring not only the rectifying characteristics (which do not yield unambiguous results) but also by using four probes to measure the specific resistivity and by using a thermal probe to determine the thermal emf of the sample. The samples were n-type germanium plates with spe-

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L 11373-65

ACCESSION NR: AP4041702

cific resistivity 1 ohm-cm, finished by grinding and chemical polishing. The use of four probes made it also possible to determine reliably the dose interval within which a p-n junction is formed. With increasing dose, the changes in the surface-layer properties were found to go through two principal stages. The first consists of accumulation of point defects without disturbing the long-range order of the crystal structure; the n-germanium is gradually converted during this stage into p-germanium. In the second stage the germanium becomes amorphous and the germanium returns to its initial type of conductivity. Two possible amorphization mechanisms are described, and the test results are interpreted from the point of view of present theories of radiation effects in semiconductors. It is pointed out that similar results are obtained by bombardment with argon, so that the nature of the bombarding ion is not of primary significance. Orig. art. has: 4 figures and 3 formulas.

ASSOCIATION: Issledovatel'skiy fiziko-tekhnicheskii institut Gor'-

Card 2/5

L 11373-65

ACCESSION NR: AP4041702

kovskogo gosudarstvennogo universiteta (Research Physicotechnical  
Institute of the Gor'kiy State University)

SUBMITTED: 20Jan64

ENCL: 02

SUB CODE: EC, SS

NR REF SOV: 003

OTHER: 009

Card 3/5

L 26620-66 EWT(1)/EWT(m) IJP(c) JD/JG

ACC NR: AP5025369

SOURCE CODE: UR/0181/65/007/010/2940/2946

79  
B

AUTHOR: Pavlov, P. V.; Zorin, Ye. I.; Tetel'baum, D. I.; Granitsyna, Z. K.

ORG: Gor'kiy State University im. N. I. Lobachevskiy (Gor'kovskiy gosudarstvennyy universitet)

TITLE: Investigation of <sup>21</sup>electrical conductivity of inversion layers forming in n-type <sup>27</sup>silicon during bombardment by <sup>27</sup>boron ions

SOURCE: Fizika tverdogo tela, v. 7, no. 10, 1965, 2940-2946

TOPIC TAGS: electric conductivity, silicon single crystal, boron, ion bombardment

ABSTRACT: Results were presented of measuring electrical conductivity of inversion layers formed in n-type silicon as a result of bombardment of the surface by boron ions with energies of 25-150 kev. Dependence of electrical conductivity of an inversion layer, formed during boron ion bombardment, on dosage and annealing temperature has qualitatively, a similar character during all energies in the diapazone studied. The effect was studied of radiation dose, temperature and annealing time. With any dosage in the 1-1000 microcoulomb . cm<sup>-2</sup> range, a sufficiently high annealing temperature leads to an electrical conductivity

Card 1/2

UX

L 26620-66

ACC NR: AP5025369

value corresponding to the quantity of boron atoms introduced. The greater the dosage, the higher the annealing temperature needed to reach this state. This possibility of developing inversion layers during bombardment without subsequent annealing was indicated. With a sufficiently large dose of boron ions the effect of injected boron atoms prevailed under the influence of radiation defects; thus the formation of p-type layer in n-silicon was possible without additional annealing. Orig. art. has: 4 figs.

SUB CODE: 20/ SUBM DATE: 03Apr65/ ORIG REF: 004/ OTH REF: 009

Card 2/2 *h/*

GUREVICH, L.I.; GRANKFURT, L.A.

Hemopoiesis after total gastrectomy. Vop. onk. 6 no. 11:26-33 N '60.  
(MIRA 14:1)

(STOMACH--SURGERY) (ANEMIA)

POSTNOV, S.D., dotsent; GRANKIN, A.I., inzh.

Efficiency of mining coal with short drifts in the Gremyachinsk deposits. Izv. vyz. ucheb. zav; gor. zhur. no. 2:3-8 '61.

(MIRA 14:3)

1. Sverdlovskiy gornyy institut imeni V.V. Vakhrusheva. Rekomendovana kafedroy razrabotki plastovykh mestorozhdeniy Sverdlovskogo gornogo instituta.

(Kizel Basin—Coal mines and mining)



GRANKIN, A.I.

Selecting an efficient mining system. Nauch. trudy PermNIUI  
no.5:5-8 '63. (MIRA 18:3)

*GRANKIN, D.V.*  
GRANKIN, D.V.

The PSQ-1 and PSQ-1S pneumatic bolt tighteners. Mashinostroitel'  
no.12:28 D '57. (MIRA 10:12)

(Bolts and nuts) (Pneumatic tools)

L 12225-63

EWI(d)/EWI(1)/FCC(w)/BDS AFPTC/ASD IJP(G)  
S/271/63/000/004/044/045

AUTHOR: Grankin, E. P. 54

TITLE: Modeling of problems in electron optics on electroconductive paper

PERIODICAL: Referativnyy zhurnal, Avtomatika, telemekhanika i vychislitel'naya tekhnika, no. 4, 1963, 66 4B366 (Dokl. 4-y Mezhvuz. konferentsii po primeneniyu fiz. i. matem. modelirovaniya v razlichn. otraslyakh tekhn. Sb. 1; Moscow, 1962, 83-89)

TEXT: The author makes a study of modeling plane and axisymmetric potential fields on the normal type of electroconductive paper. As examples, the author takes up the modeling of a plane potential created by a diaphragm with aperture; the field of an electrostatic photomultiplier with focussing electrons; and the field of a linear multiplier. A solution of the problems of electron optics requires greater accuracy than that of the theory of filtration, hydrodynamics, etc. Therefore, in the problems examined, the anisotropism of the paper was taken into account. The author presents his results for modeling the problems referred to. The examples show that electroconductive paper as a means for modeling electron optics problems gives sufficiently accurate results for practical use. There are three illustrations and 2 tables; the bibliography contains 4 items. V. Zh.

/Abstracter's note: Complete translation/

Card 1/1

S/021/62/000/012/003/018  
D251/D308

AUTHOR:

Grankin, E.P.  
Grankin, E.P.

TITLE:

Solution of the inverse problem of electronic optics  
with the aid of fields having an axis of symmetry

PERIODICAL:

Akademiya nauk Ukrayins'koyi RSR. Dopovidi, no. 12,  
1962, 1546-1549

TEXT:

The inverse problem of electron optics is defined as that of finding the distribution of potential required for a trajectory of given form. The author considers a locus without cusps, tac-cusps or turning-points. In this case, the solution of the equations of motion of the electrons will give a family of trajectories with the abscissa as axis of symmetry. By noting that the abscissa will also be an axis of symmetry for the required field, and taking the parameter of the family  $\alpha$  to be small, the distribution of potential on the axis of symmetry is obtained in the form

$$\frac{dp}{dx} = -p^2 - kp \frac{f'(x)}{f(x)} - r \frac{f''(x)}{f(x)} \quad (3)$$

Card 1/2

Solution of the inverse problem ...

S/021/62/000/012/003/018  
D251/D308

where  $p = \Phi'(x)/\Phi(x)$ ,  $f(x)$  is the equation of the trajectory  $k = 1$ ,  $r = 2$  for fields with plane symmetry;  $k = 2$ ,  $r = 4$  for fields with an axis of revolution. A solution of  $\Phi(x)$  is sought in the form of an exponential, with index  $p(x)$ , where  $p(x)$  is a solution of (3). By considering the energy corresponding to the potential distribution along the axis, and also the Hamilton function expressed in terms of electron velocity, the problem is reduced to the solution of Riccati's equation and ordinary first-order differential equations. The cases of rectilinear and parabolic trajectories are considered as examples.

ASSOCIATION: Instytut matematyki AN URSR (Institute of Mathematics of the AS UkrSSR)

PRESENTED: by Yu.A. Mytropol's'kyy, Academician

SUBMITTED: June 27, 1962

Card 2/2

L 36311-65 ENT(1)/T/EEC(b)-2 IJP(c)  
 ACCESSION NR: AT5007345

S/3145/63/001/001/0028/0052

AUTHOR: Grankin, E.P.

TITLE: Solution of a converse problem of corpuscular optics for plane electrostatic fields

SOURCE: AN UkrSSR. Institut matematiki. Seminar po prikladnoy matematike, Trudy, v. 1, no. 1, 1963, 28-52

TOPIC TAGS: electromagnetic field, trajectory, differential equation, Laplace equation, harmonic function, analytic function, charged particle, electrostatic field, corpuscular optics, boundary value problem, Cauchy integral

ABSTRACT: The paper is concerned with the converse problem of corpuscular optics: To determine the nature of a field when the trajectories of charged particles moving through the field are known. It is assumed that the fields under consideration are electrostatic, and that the potentials of the field satisfy Laplace's equation

$$\frac{\partial^2 \varphi}{\partial x^2} + \frac{\partial^2 \varphi}{\partial y^2} = 0.$$

Card 1/2

L 36314-65  
ACCESSION NR: AT5007345

It is also assumed that two arbitrary trajectories of a trajectory family are given for each given, closed trajectory. The problem is reduced to an equation

$$\frac{\partial f_1(t)}{\partial n} + \frac{\partial \overline{f_1(t)}}{\partial n} = \frac{2}{\rho^*(t)} [f_1(t) + \overline{f_1(t)}], \quad (2)$$

where

$$\frac{\partial \psi}{\partial x} = \frac{\partial \psi}{\partial y}, \quad \frac{\partial \psi}{\partial y} = -\frac{\partial \psi}{\partial x}, \quad f_1(z) = \varphi(x, y) + i\psi(x, y). \quad (3)$$

and  $\rho^*(t)$  is the radius of the contour  $X$  in complex form,  $t$  being the points of  $X$ . The function  $f_1(z)$  is then determined by means of Cauchy's integral formula. This method gives a solution to the third boundary value problem for harmonic functions. Orig. art. has: 80 formulas.

ASSOCIATION: Institut Matematiki AN UkrSSR, Kiev (Mathematics Institute, AN Ukr SSR)

SUBMITTED: 09Oct62

ENCL: 00

SUB CODE: OP, MA

NO REF SOV: 008

OTHER: 000

Card 2/2 *hs*

GRANKIN, G.

Increase the responsibility for saving internal working capital.  
Avt.transp. 43 no.5:36-37 My '65. (MIRA 1966)

I. Nachal'nik finansovogo otdela Ministerstva avtotransporta i  
shosseynykh dorog Uzbekskoy SSR.



SHEVCHENKO, P.I.; GRANKIN, I.A.

Machine for lapping surfaces of body parts. Mashinostroenie no.3:112-  
113 My-Je '62. (MIRA 15:7)  
(Grinding machines)

SHEVCHENKO, P.I., inzh.; GRANKIN, I.A., inzh.

Semiautomatic unit for shot-blast cleaning of internal and external pipe surfaces. Mashinostroenie no.4:56-57 J1-Ag '62.

(MIRA 15:9)

1. Khar'kovskiy traktorny zavod.

(Pipe—Cleaning) (Shot peening)

SHEVCHENKO, P. I.; GRANKIN, I. A.

Pneumatic device for driving-in and knocking-out wedges of  
stamping and forging hammers. Mashinostroenie no.5:106-107  
S-0 '62. (MIRA 16:1)

(Pneumatic tools)

SHEVCHENKO, P.I.; GRANKIN, I.A.

Automatic machine for induction heat treatment of tractor journals.  
Bibl.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform.  
no.11:47-48 '62. (MIRA 15:11)

(Induction heating)

DAVYDOV, V.V., kand. tekhn. nauk; GRANKIN, I.G., inzh.; ZHUKOVIN,  
D.I., inzh.

Apparatus for determining and automatically recording the  
hardening time of resins. Nauch. soob. IGD 18:192-196 '63.  
(MIRA 16:11)

VADYDOV, V.V., kand. tekhn. nauk; GRANKIN, I.G., inzh.; NAZAROVA, Z.G., inzh.;  
ZHUKOVIN, D.I., inzh.

Use of an ultrasonic viscosimeter to determine the viscosity of  
tar solutions used to chemically reinforce rocks. Nauch. soob.  
IGD 20:122-126 '63. (MIRA 16:10)

(Viscosimeter)

(Tar—Testing)

L 10865-65 ENT(1)/EEC(b)-2/EEB-2/ENA(h) Feb IJP(c)/ESD(t)/ESD(gs)/ASD(a)-5/  
ASD(d)/AFETR/ESD(dp)/AFWL/SSD/RAEM(a)  
ACCESSION NR: AR4046558 S/0058/64/000/008/H027/H027

AUTHOR: Grankin, I. M.

SOURCE: Ref. zh. Fizika, Abs. 8Zh176

TITLE: Broadband ferrite unit based on the Faraday effect

CITED SOURCE: Tr. Kiyevsk. politekhn. in-ta, v. 45, 1963, 16-21

TOPIC TAGS: broadband component, ferrite, waveguide element, polarization, ribbed waveguide

TRANSLATION: A method is described for decreasing the dispersion of the polarization plane rotation angle in a ferrite unit, using a round waveguide having four removable metal ribs. The shape of the rib is that of an isosceles trapezoid. Three sets of ribs, differing in height, were investigated. The thickness of the ribs remains constant. Twelve brands of ferrites were investigated, of

Card 1/2

L 10865-65  
ACCESSION NR: AR4046558

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which the most satisfactory from the point of view of activity and matching were the batches M-188 and M-18. Optimal dimensions of the samples are presented. Plots are presented of the polarization plane rotation angle and of the VSWR on the frequency (8.3--9.7 Gc) for a usual waveguide and a waveguide with ribs. It is noted that the use of a ribbed waveguide increases the broadband characteristics. The equipment is recommended for gates, switches, non-reciprocal phase shifters, and single sideband modulators. V. S.

SUB CODE: EC

ENCL: 00

Card 2/2



L 10867-65 - EEO-2/ET(d)/ET(1)/EEC(k)-2/EEC(h)/EEC(t)/EED-2/EWA(h)/FSS-2 Pm-h/  
 Pn-h/Po-h/Pp-h/Pq-h/Pg-h/Pk-h/Pl-h/Fac-h/PeB AFWL/SSD/RAEM(a)/ESD(t)/AFETR/ESD(gs)/  
 ACCESSION NR: AR4046560 ASD(d)/ASD(a)-5/ S/0058/64/000/008/H043/H043  
 ESD(c)/ESD(dp)

SOURCE: Ref. zh. Fizika, Abs. 8Zh277

AUTHORS: Grankin, I. M. B

TITLE: Use of amplitude, balanced, and phase modulation in the mea-  
sure phase shifts in the microwave band q

CITED SOURCE: <sup>qm</sup> Tr. Kiyevsk. politekhn. in-ta, v. 45. 1963, 22-33

TOPIC TAGS: microwave transmission, <sup>q</sup> amplitude modulation, phase  
 modulation, balanced modulation, phase shift, carrier suppression 23

TRANSLATION: An interference phase meter for the microwave band is  
 considered, using amplitude, balanced, or phase modulation of one of  
 the compared signals and using a standard measuring line as the com-  
 parison phase shifter. An analysis is made of the operation of sys-  
 tems for the measurement of phase shifts under different arrangements

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L 10867-55

ACCESSION NR: AR4046560

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of the modulators relative to the elements of the system. The sensitivity of the system and the maximum measurement error due to the insufficient suppression of the carrier in the balanced modulator are determined. The construction of a ferrite modulation device and the ferrite phase shifter circuit are shown. The characteristics of a phase shifter are presented, plotted under amplitude, balanced, and phase modulation. A. M.

SUB CODE: EC

ENCL: 00

Card

2/2

GRANKIN, I.M.; LARKIN, Yu.F.

Characteristics of some ferrite microwave phase shifters. Izv.  
vys. ucheb. zav.; radiotekh. 7 no.2:186-190 Mr-Ap '64.

(MIRA 17:8)

L 52215-65 EWT(d)/EEC(k)-2/EEC-4 Po-4/Pq-4/Pg-4/Pk-4/P1-4

ACCESSION NR: AP5011952

UR/0142/65/008/001/0072/0077  
021.317.742

AUTHOR: Grankin, I. M.; Ishchenko, V. A.

TITLE: Errors in measurement of phase shifts at shf by some interference-type systems

38  
B

SOURCE: IVUZ. Radiotekhnika, v. 8, no. 1, 1965, 72-77

TOPIC TAGS: phase measurement, shf phase measurement

7M

ABSTRACT: Methods are considered of shf phase measurements by the interference-type systems in which a measuring line is used as a reference phase shifter (see Figs. 1, 2, and 3 of the Enclosure). An analysis of errors due to mismatch of individual elements and to the attenuation introduced by the test element permits drawing these conclusions: (1) The circuit shown in Fig 1 of the Enclosure is suitable for testing the elements that have low attenuation and low voltage standing wave ratio (SWR); (2) The circuits shown in Figs. 2 and 3 of the Enclosure should be used for testing the elements with higher attenuation and voltage SWR; (3) Phase modulation permits eliminating the effect of attenuation on the error and facilitates the measuring process. Orig. art. has: 3 figures and 28 formulas.

Card 1/3

L 52215-65

ACCESSION NR: AP5011952

ASSOCIATION: none

SUBMITTED: 10Jan64

ENCL: 01

SUB CODE: EC

NO REF SOV: 003

OTHER: C02

Curd 2/3

L 52215-65

ACCESSION NR: AP5011952

ENCLOSURE: 01

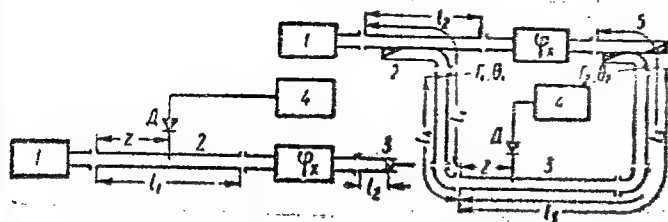


Fig 1. Phase measuring circuit

Fig 2. Phase measuring circuit with directional couplers

- element being tested; 1 - oscillator.

2 - measuring line

3 - short-circuiting plunger

4 - amplifier-indicator.

2 - 5 - directional couplers

3 - measuring line

4 - amplifier-indicator

Fig 3. Phase measuring circuit with a phase modulator

2 - 5 - directional couplers

3 - measuring line

4 - amplifier-indicator

6 - phase modulator

7 - amplifier-indicator of -frequency detector-current component

Card 3/3

GRANKIN, I.S., aspirant

Ventilation of large sized coal mine areas with a flat dip.  
Sbor.DonUGI no.20:165-175 '61. (MIRA 15:6)  
(Mine ventilation)

GRANKIN, I.S., gornyy inzh.; TOLKATSER, D.Ya., ekonomist

Readers' response to the article by V.V. Dobrovolskii and T.D. Basishvili "Efficiency of using hydraulic mining for leaving rocks in a mine."; "Ugol'", 1962, No.7. Ugol' 38 no.3:63 Mr '63. (MIRA 18:3)

1. Donetskii nauchno-issledovatel'skiy ugol'nyy institut.



GRANKIN, N., inzh.-podpolkovnik

The candidate's trial period, an important stage in the formation  
of a communist. Komm. Vooruzh. Sil 46 no.20:34-38 0 '65.  
(MIRA 18:12)

ACC NR: AP6030317

(A)

SOURCE CODE: UR/0018/66/000/008/0106/0108

AUTHOR: Grankin, V. (Colonel)

ORG: none

TITLE: The protection of communications from nuclear weapons

SOURCE: Voyennyy vestnik, no. 8, 1966, 106-108

TOPIC TAGS: fallout shelter, nuclear warfare, nuclear defensive training, communication site

ABSTRACT: The protection of communication sites from shock waves produced by nuclear blasts, from radioactive radiation, and contamination as regards detached commands and vehicles is discussed. Protection against the shock wave is best achieved by placing the communication posts in naturally and artificially protected areas--clearings in woods, trenches, holes, ravines, cellars, bridges, tunnels, etc. In regard to protection against radiation and contamination, instructions are presented for the construction and equipment of a simple shelter, with radioactivity measurement instruments, which can be completed by 6-7 men and equipment in 3 to 3.5 hr. Orig. art. has: 1 table, 1 photograph.

SUB CODE: 15/

SUBM DATE: none

Card 1/1

GRANKINA L.G.  
SHPUNTOVA, M.Ye.; MAKSIMENKO, N.S.; GRANKINA, L.G.

Perfecting pentose and hexose hydrolysis of cottonseed  
hulls. Gidroliz. i lesokhim. prom. 9 no.4:7-9 '56. (MLRA 9:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy  
i sul'fitno-spirovoy promyshlennosti (for Shpuntova) 2.  
Ferganskiy gidroliznyy zavod (for Maksimenko i Grankina).  
(Cottonseed) (Hydrolysis)

CHEREMUKHIN, I.K.; MININA, V.S.; GRANKINA, L.G.

Cotton stalks as a raw material for hydrolysis plants in Central Asia. Gidroliz. i lesokhim. prom. 11 no.5:21-22 '58. (MIRA 11:9)

1. Ferganskiy gidroliznyy zavod.  
(Asia, Central--Hydrolysis) (Cotton)

LEYKIN, Ye.R.; GUTINA, S.L.; CHEREMUKHIN, I.K.; GRANKINA, L.G.;  
PAVLOV, A.A.; NOVOSELOVA, A.A.

Introducing the battery method for ion-exchange purification  
of xylose syrups. *Gidroliz. i lesokhim. prom.* 16 no.2:15-16  
'63. (MIRA 16:6)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut gidro-  
liznoy i sul'fitnospirtovoy promyshlennosti (for Leykin,  
Gutina). 2. Ferganskiy gidroliznyy zavod (for Cheremukhin,  
Grankina, Pavlov, Novoselova).  
(Xylose) (Ion exchange)

L 00739-66 EWT(m)/EPF(c)/T BW/DJ

ACCESSION NR: AP5021989

UR/0286/65/000/014/0064/0064  
621.892.09

AUTHOR: Cheremukhin, I. K.; <sup>44</sup>Semanov, N. G.; <sup>44</sup>Frenkel', A. L.; <sup>44</sup>Grankina, L. G.;  
Dyrova, V. I. <sup>44</sup>

TITLE: Hydraulic brake fluid. Class 23, No. 172944

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 14, 1965, 64

TOPIC TAGS: brake fluid, anticorrosion additive, antifreeze

ABSTRACT: This Author's Certificate introduces a hydraulic brake fluid based on xylithane, methanol fraction, anticorrosion additives and thickening agents. The fluid is made more resistant to freezing, the rate of corrosion in the sleeves is reduced and a wider selection of raw materials is provided by adding 300 wt. % furfural to a 1:1 mixture of xylithane and methanol fraction.

ASSOCIATION: none  
SUBMITTED: 12Jul62  
NO REF SOV: 000

ENCL: 00  
OTHER: 000

SUB CODE: FP

Card 1/1 *RP*

BELOUS, M.V.; GRANKINA, L.P.; PERMYAKOV, V.G.; SEVERYANINA, Ye.N.

Electric properties of thin nichrome films. Fiz. met. i metalloved.  
16 no.5:669-674 N '63. (MIRA 17:2)

1. Kiyevskiy politekhnicheskii institut.

L 60443-65 EWT(m)/EWP(i)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b)/EWA(c) IJP(c) JD

ACCESSION NR: AP5016524

UR/0126/65/019/006/0840/0844  
539.23 + 621.316.825

AUTHOR: Belous, M. V.; Grankina, L. P.; Permyakov, V. G.; Proleyeva, Ya. N.

TITLE: Electric properties of thin coatings of nichrome. II. Thermal coefficient of resistivity

SOURCE: Fizika metallov i metallovedeniye, v. 19, no. 6, 1965, 840-844

TOPIC TAGS: electric resistivity, nimonic alloy, thin film, high temperature, high temperature metal, silver, metal physics

ABSTRACT: The temperature coefficients of resistivity ( $\alpha_{200-500} \times 10^3 \text{ deg}^{-1}$ ) of nichrome coatings (100 to 3000 Å) were studied in a temperature range of 300 to 900°K. For testing, the specimens were heated in a vacuum of  $5 \cdot 10^{-5}$  mm Hg; some tests were also made on silver coatings for the same conditions. The character of the change of  $\alpha$  with temperature remained the same for both cases: with rise in the temperature of heating in a vacuum  $\alpha$  also increased. Corrections in Matthiessen's rule for resistivity were made to take account of the dispersion of the conducting electrons by the surface of the coating. The final equation evolved was:

$$\rho = \rho_1 + \rho_2 + \rho_3$$

Card 1/2



L 60443-65

ACCESSION NR: AP5016524

where  $\rho$  is total resistivity,  $\rho_T$  is thermal resistivity,  $\rho_i$  is resistivity due to impurities, and  $\rho_s$  is resistivity due to surface effects. The temperature coefficient of resistivity was defined as  $\alpha = \frac{\partial \rho}{\partial T} \cdot \frac{1}{\rho}$ . Values of  $\alpha$  were found to be lower

for thin layers, when compared to those of more massive samples, for the same defect density in the crystal structure and for the same  $\rho_T$ . Upon cooling, the  $\rho$ -T°K curve was lowered considerably, but steadily rose to the same value for heating at high temperatures. Theoretical arguments were given based on adsorption of atoms due to increased surface diffusion and surface tension. In conclusion, the practical uses of nichrome coatings in bolometers were enumerated. Orig. art. has: 3 figures.

ASSOCIATION: Kiyevskiy ordena Lenina politekhnicheskii institut (Kiev "Order of Lenin" Polytechnic Institute)

SUBMITTED: 08May64

ENCL: 00

SUB CODE: MM, EM

NO REF SOV: 009

OTHER: 003

dm  
Card 2/2

TIKHONOV, V.N.; GRANKINA, M.Ya.

Effect of certain cations on the determination of potassium by the  
gravimetric perchlorate method. Zhur.anal.khim. 17 no.8:917-921  
N '62. (MIRA 15:12)

1. All-Union Scientific-Research Aluminum-Magnesium Institute, Branch  
in Berezniki.

(Potassium--Analysis)

(Perchlorates)

TIKHONOV, V.N.; GRANKINA, M.Ya.

Determination of sodium in chloride melts of the titanium production by a gravimetric zinc uranyl acetate method. Zhur.anal.khim. 18 no.7:900-902 JI '63. (MIRA 16:11)

1. Bereznikovskiy filial Vsesoyuznogo nauchno-issledovatel'skogo alyuminiyevo-magniyevogo instituta.

TIKHONOV, V.N.; GRANKINA, M.Ya.

Complexometric determination of aluminum in products from  
the titanium industry. Zav. lab. 29 no.6:653-654 '63.  
(MIRA 16:6)

1. Bereznikovskiy filial Vsesoyuznogo nauchno-issledovatel'-  
skogo alyuminiyevo-magniyevogo instituta.  
(Aluminum—Analysis) (Complexons)